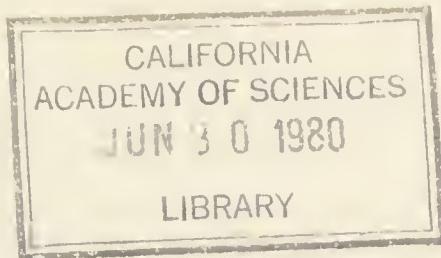


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the Gull

Volume 62 Berkeley, Calif. July-August, 1980 Number 7

Field Trips Calendar

\$ indicates entrance fee required

Sunday, July 20—North slope of Mt. Tamalpais. This trip involves a 5-mile walk through a variety of habitats— marsh, meadow, woods and lakes. Meet at the parking lot in the center of the town of Fairfax. The caravan will leave there at 8 a.m. Be prepared to carry your lunch and liquids. Leader: Pat Triggs (664-8502). (✓)

Sunday, July 13—Chimney Rock, Pt. Reyes. We will look for the nesting oystercatchers and Western Gulls with chicks. Meet at 9 a.m. at the Pt. Reyes National Seashore Headquarters where we will carpool to our destination. Leader: Betty Short (921-3020). (✓)

Saturday, July 26—San Mateo County coast. Meet at Pescadero Beach parking lot at the intersection of Hwy. 1 and Pescadero Rd. at 8 a.m. Please carpool to this point if possible because parking is limited and carpooling will be necessary. Bring lunch and a light jacket; the weather can be cool along the coast. Brown Pelicans, Heermann's Gulls and Black Oystercatchers are probable. We may also see Harlequin Ducks, Black Swifts and Bank Swallows at Año Nuevo. Leader: Jon Zablackis (527-2083). (✓) (\$)

Saturday, August 2—Palo Alto Flood Control Basin. Meet at 8:30 a.m. for this morning trip to the ponds and sloughs south of the Palo Alto Baylands Refuge. From Hwy. 101 exit at Embarcadero Ave. Go east under the freeway to the first stop light and turn right on Frontage Rd. Drive south to the large open area south of the large pond. If you reach the El Camino Kennels you have gone too far. Summering

ducks, egrets and herons are the main attractions. Forster's and Least Terns, White Pelicans and a Little Blue Heron may be seen in the south bay at this time of year. Leader: Ted Chandik (493-5330).

Saturday/Sunday, August 9-10—Yosemite National Park. On Saturday meet at roadhead for May Lake at 8:30 a.m. for an all-day alpine ecology trip up Mt. Hoffman. Take the May Lake turnoff from Hwy. 120 (Tioga Pass Road) and proceed several miles to the end of road. The climbing pace will be slow with a number of stops for birds, flowers, etc., but the trip requires some stamina. The total roundtrip hiking distance will be about 5-6 miles. On Sunday we will meet at 8 a.m. at the parking area just before the Tioga Pass entrance station on Hwy. 120 and will drive a short distance to the Saddlebag Lake area, where we will hike up to the Carnegie Institute Timberline Station to see firsthand the study work on the Subalpine Breeding Bird Community being conducted by Dave De Sante. Roundtrip hike will be about 3 miles and we should return to cars by mid-afternoon for those driving back to Bay Area.

For those interested in accommodations, call Yosemite Park & Curry Co. immediately at (209) 373-4171. The closest facilities are the May Lake High Sierra Camp (hike-in), Tuolumne Meadows High Sierra Camp and White Wolf Lodge. Tuolumne Meadows and White Wolf Campgrounds will be open, but some campgrounds will be closed. For current information, call National Park Service Public Information at (209) 372-4461, Ext. 248. No camping reservations are available on the Tioga Road, but Yosemite Valley campsites may be reserved through Ticketron. Leader: George Peyton (444-3131 - weekdays). (✓)

Saturday/Sunday, August 16-17—Mt. Pinos for California Condors. Meet at 8 a.m. to watch for California Condors at Mt. Pinos Condor Observation Point. We should see a variety of other species common to the high mountains of California in summer. Be prepared for hot days at lower elevations. At the top of Mt. Pinos it may be windy and cold, so bring a warm jacket, a hat and sun screen. Bring your scope, lunch and liquids both days.

From the Bay Area drive south on I-5 past the town of Grapevine (south of Bakersfield) to the Frazier Park off-ramp. If you reach Gorman you have gone too far. From I-5 go west past Frazier Park, through

Published each month except August by the Golden Gate Audubon Society, office address 2718 Telegraph Avenue, Berkeley, CA 94705. Second class postage paid in Berkeley, CA. (THE GULL - USPS 417-705)

Lake-of-the-Woods and follow the signs (N.W.) toward the Mt. Pinos Recreation Area. The road passes through Cuddy Valley and a yellow pine forest. It ends at a large parking lot. From there take the dirt road to the left for about a mile to the asphalt parking lot where we will meet (8 a.m.). The road is very rough but it is passable if you drive slowly. Camping is available in Los Padres National Forest. McGill Campground provides the best facilities and fine birding. It is located on the road to the observation area. It may be wise to arrive before mid-afternoon Friday because McGill and other campgrounds may fill for the weekend. Motels and restaurants are available at Gorman and other nearby towns. Leader: Eben McMillian. For additional information call Dan Murphy (564-0074) during early August or the GGAS office (843-2222). (✓)

Problems: If for any reason you have difficulty getting in touch with a field trip leader or need information regarding a trip, call Dan Murphy (564-0074) or the GGAS office (843-2222).

Carpooling: Carpooling arrangements can be made for trips marked (✓). If you need a ride or are offering one, call Kate Partridge at work (642-2881, 8 a.m.-1 p.m.) or at home before 9 p.m. (548-0779).

The Field Trips Committee suggests that a guideline of 20¢ per mile divided by the total number of riders (including driver) be used for setting the shared cost of each trip. This would cover gasoline only. Any other expenses, such as bridge tolls, or parking or entrance fees should also be divided equally.

—FIELD TRIPS COMMITTEE

Spring Observations — late March to May 19

Both migrants and rarities have been scarce during most of this period.

WATERBIRDS

Only three to seven Eared Grebes frequented SE Farallon during March; 200-400 is usual (PRBO). This species deserves extra scrutiny as Mono Lake is strangled. A Pelagic Cormorant was very unusual as far inland as the Dumbarton Bridge April 1 (CS). Two or four Cattle Egrets at Bethel Island March 31 (JR, BR) deserve mention, but a group of 52 roosting at San Felipe Lake, San Benito County, April 13 (AE) is most impressive. A male Eurasian Wigeon was on the Stockton Sewage Ponds March 26-27 (RA, DM, DY). The Tufted Duck remained in Mill Valley through April 13 (mob). A male Harlequin Duck spent March 26-April 16 at SE Farallon (PRBO). Two others were seen April 13 at Santa Cruz (AE), where one had been April 6 (SW, JOG, LH).

The five American Golden Plovers lingered at the Lodi Sewage Ponds to March 27 (RA) and eleven trod Spaletta Ranch fields until April 18

(JE). Two Rock Sandpipers departed SE Farallon on or shortly after April 2 (PRBO), and one at Pebble Beach, San Mateo County, was still there April 6 (SW, JQG, LH). The Stockton Sewage Ponds' **Black-headed Gull** and **Little Gull** were last seen April 10 (WK, BA). An adult summer **Laughing Gull** visited Bodega Bay April 15 (GP). San Gregorio Beach, San Mateo County, had a Franklin's Gull April 20 (RS). A Sabine's Gull at SE Farallon March 26 (PRBO) was early. A Xantus' Murrelet was there the same day (PRBO).

INTERIOR LANDBIRDS AS COASTAL VAGRANTS

Two Swainson's Hawks passed Twin Peaks in migration April 1 (BT). The Western Kingbird on Bay Farm Island April 15 (DT, *et al.*) raised eyebrows there. A **Bendire's Thrasher** was well described from the Benicia Hills of Solano County March 27 (SB). Another **Bendire's** highlighted SE Farallon April 16-17 (PRBO). These are the first spring records for Northern California. Bay Farm Island's Sage Thrasher was last seen April 16 (DT). A Townsend's Solitaire was found at the Fish Docks April 18 (JE). The Loggerhead Shrike on SE Farallon since Sept. 11 began singing before it finally departed March 25 (PRBO). The female **Great-tailed Grackle** continued to roost in Walton Square at least through April 4 (DE). Meanwhile, the male **Great-tailed Grackle** appeared near Ghirardelli Square March 30 (RG, JG) and was spotted back at Fort Mason April 26 (SK). Only small numbers of Evening Grosbeaks and Red Crossbills continue their presence (DN, *et al.*). On SE Farallon, a male Cassin's Finch banded April 12 remained another day (PRBO).

EASTERN VAGRANT AND UNSEASONAL LANDBIRDS

Very early Black Swifts were observed in the San Ramon Valley of Contra Costa County, the first on April 14 (FB) and four on April 16 (JR). Two others were on schedule on Mt. St. Helena May 11 (DN). The Santa Cruz Eastern Phoebe stayed to April 6 (SW, JQG, LH), a very late date for this fall-winter vagrant. Apparently another Eastern Phoebe was flycatching at Murre Caves, SE Farallon Island, May 4 (BH, GPe, *et al.*). Our two previous spring records are from SE Farallon. A very late migrant Winter Wren was in Pittsburg May 13 (DE). The only eastern warbler of the period was a black-and-white in San Francisco April 11 (LJ). The Yellow Warbler that wintered in Walton Square finally migrated April 28 (DE). A **Clay-colored Sparrow** in San Rafael Feb. 14 to April 14 (DS) is our first evidence of successful overwintering. A male Lapland Longspur at Hall Ranch May 13 was in full breeding plumage (DS).

Observers: Ray Acker, Katherine Allman, Beverly Anderson, Florence Bennett, Sheila Byrne, Art Edwards, Dick Erickson, Jules Evens, Judy Gradwohl, Russ Greenberg, Jeffrey Q. Greenhouse, Leo Hallford, Bob Hirt, Loretta Juhas, Sybel Kaplan, Woody Kuehn, Douglas Martin, many observers (mob), Dan Nelson, Point Reyes Bird Observatory (Farallon reports thanks to Bryant Bainbridge), Gary Page (GP), George Peyton (GPe), Bob Richmond, Jean Richmond, Elsie Roemer, Dave Shuford, Richard Sintchak, Malcolm Sproul, Chris Swarth, Bruce Travis, David Trocki, Steve Wilson, David Yee.

—STEPHEN F. BAILEY, *Observations Editor*
Museum of Vertebrate Zoology
University of California, Berkeley, CA 94720
(phone 548-9507; or Karen L. Bailey at 642-3327 8 a.m.-noon, 1-5 p.m.)

Conservation Note

DRAFT DESERT PLAN. Before the end of September, Secretary of the Interior Cecil Andrus will make a land management decision of major consequence to all Americans — especially Californians. His decision will determine the future protection and use of the resources of the California Desert Conservation Area into the year 2000.

In 1976 the Bureau of Land Management was instructed by Congress to prepare and carry out a plan for the 12.5 million acres of public lands within the Desert Conservation Area. The information on all aspects of the desert area and its management that the BLM gathered during the past three years has been organized into a Draft Desert Plan and Environmental Impact Statement. Following public input on the draft plan a final plan will be released for public input sometime this summer and then implemented by the Secretary of the Interior.

The draft plan seems inadequate in wildlife protection and clearly fails to provide the environmental consequences of designating or not designating each wilderness study area. This failure to provide impact analysis for specific sites was recently found by the courts to constitute an inadequate EIS in the RARE II decision. Public opinion polls sponsored by the BLM itself showed the American public gave wildlife protection and ecology the highest priority for desert land use.

The desert bighorn sheep compete with feral horse and burro populations and the negative effects on the bighorns are well documented. The proposed burro reduction under all "action alternatives" of 56-62% is not adequate to slow the bighorns' decline.

The livestock grazing section also fails to provide for significantly different options. Grazing in the desert is economically marginal and has a high potential impact on endangered plants and plant communities. Since vegetation and soils are not treated as a desert resource, however, the impact of grazing remains unresolved in the plan. Phasing out of grazing privileges by cancelling leases at the time of transfer or sale should be evaluated.

None of the alternatives for the use of offroad vehicles within the Desert Conservation Area seems satisfactory. Use of the heavily impacting ORVs should be restricted to BLM-designated roads and ways, clearly posted and controlled. The quality and ecological integrity of these areas should be maintained by the BLM. Conservation and protection of resources should take priority over potentially destructive recreational use.

The preceding examples show just a few of the desert plan's weaknesses. Copies of the plan may be seen at the GGAS office along with a detailed National Audubon Society critique. All public comments will be evaluated right up to the final Draft Plan Alternative in December, 1980. GGAS members are urged to write or call to convey your concerns about the California desert. Contact the BLM, P.O. Box 5555, Riverside, CA 92517, or call, toll-free, (800) 442-4946.

—CONSERVATION COMMITTEE

Condor Controversy

The following letter was sent to The Gull by a former chairman of the Conservation Committee:

I must respectfully disagree with the Board of Directors of GGAS on their Condor Recovery Plan stand. At this eleventh hour in the condor's swift decline I feel that to further extend research into the condor's range, feeding and nesting habits and fatalities without resort to modern techniques spells an early doom for these birds. Even additional protection and food sources may not assure survival, as these don't seem to be the most critical factors.

The Board's opposition to any captive breeding program ignores the successful captive breeding programs of the Whooping Crane, Andean Condor and Peregrine Falcon, to cite several well known to laymen and the scientific community. And to deny the use of telemetric devices for some captured and released condors would preclude any sure determination of numbers, range, sex, etc. This and a captive breeding program

for four or five pair of condors must be done while some wild birds remain to help reintroduce captive-bred immature birds to the range.

I understand that the National Audubon Society Board of Directors and staff, recovery plan scientists and politically knowledgable conservationists feel that to renege on this carefully planned, coordinated recovery effort would destroy future support for such programs for future endangered species from the scientific community, wildlife organizations and the Congress.

—PAUL F. COVEL

This reply to Mr. Covell's letter is from one of the authors of the position paper which outlined the reasons the GGAS Board of Directors voted to oppose National Audubon Society's Condor Recovery Plan. That paper was published in the June issue of The Gull.

The GGAS Board of Directors has carefully considered its position on the Condor Recovery Plan. Various representatives of the National Audubon Society including President Russell Peterson, Condor Naturalist John Borneman and several others discussed policies with us including the Condor Recovery Plan. We read the positions of others and some of us spoke with the late Carl Koford and with Eben McMillian. Finally, after gathering as much information as possible, so we could best represent the well-being of the condor, the goals of our Society and the interests of our members, we adopted a position in opposition to the Condor Recovery Plan.

There is little or no indication that the condor is in immediate danger of extinction. Its life span in captivity exceeds 30 years so we assume it has a reasonably long life span in the wild. Last year's GGAS field trip to see condors provided us with excellent looks at two immature birds. There are presently two known birds which have not yet fledged. This is certainly evidence that the species can reproduce in the wild.

I must take issue with Mr. Covell's position that other captive breeding programs have been successful. To be sure, captive-reared birds of other species have been reintroduced to the wild, but there are still many questions regarding their reproductive success. No California Condor has ever laid a fertile egg in captivity, so we don't even know if captive breeding is a possibility. The present plan to remove nine birds, perhaps one-third to one-half of the entire population, from the wild for captive breeding seems quite radical, and even if condors are reared in captivity we still have no idea whether they can be successfully reintroduced in the wild. But reproductive success is not our only concern. There

appears to be no suitable site to reintroduce a captive-bred population and, with ever-increasing human impact on the limited condor habitat, it is questionable whether even the present population can survive. No one has yet suggested preserving the condor as a zoo species, but if captive breeding is undertaken, that may be all we end up with — the shell of a once-magnificent master of the air currents, capable only of sitting on a perch in a cage and eating scraps of horse meat.

Our opposition to capturing birds for sexing, banding, radio telemetry or other purposes is based on several factors. There is no denying short-term capture of birds would certainly further our knowledge of the species, but it appears to us that those proposing this action have yet to lay the foundations in field study and conservation before undertaking more advanced studies. There is no published data which supports the assumption that condors can be captured safely. Until capture techniques are proved with Andean Condors, the results of captures are published in the scientific literature and such reports are reviewed and commented upon by the scientific community, we cannot possibly support the short-term capture of condors.

As for gaining or losing the support of the scientific community, wildlife organizations and Congress, I can only say that if the Recovery Plan fails, the National Audubon Society will strike an irreversible blow to all its conservation efforts. If condors needlessly die or they can't successfully be reintroduced to the wild, it will be decades before even its own membership will support the National Audubon Society's conservation efforts.

—DAN MURPHY

Condor Recovery Plan Approved

On May 30 the California Fish and Game Commission voted three to one to approve the controversial Condor Recovery Plan proposed by National Audubon Society and the U.S. Fish and Wildlife Service.

The approval was made contingent on the success of the release into the wild of young Andean Condors raised in captivity by the USF&WS at its Patuxant, Maryland, research center. The commission also wants to review Andean Condor trapping and release techniques the USF&WS plans to use this summer in South America before allowing similar practices in California. The commission denied permission requested by NAS and USF&WS to visit the nest of a California Condor born this spring for the purpose of banding the individual before it fledge.

The Fabric of Nature

The horizon appeared once again. For three days, it had ceased to exist as swirling billows of fog choked the snow-mantled coastal plain. Now, the weak June sun burned hesitantly through the mist and the pale blue northern sky met the lonely white expanse of the Alaskan tundra.

Tiny brown patches of snow-free ground dotted the whiteness. The great flat land was silent but for the lilting warble of a distant longspur and the slushing collapse of melting snow beneath the surface of the pack. As one such cascade plugged a tiny subnivean runway, a small brown rodent darted from beneath the snow and scurried across a spot of bare ground . . .

A stealthy ghost loped across the icy landscape. Only dark eyes and a dark nose marred the immaculate pelage of the arctic fox, not yet moulting into its summer garb of brown. She stopped abruptly where a lemming burrow plunged into the snow and pawsed tentatively. The fox then dug rapidly downward for several inches and just as abruptly stopped, realizing that the burrow's owner was gone. Turning, she trotted on, then heard the soft crunch of falling snow near the edge of a snow-free patch. Freezing in her tracks, the fox waited, crouching low on the snowbank. Suddenly, a lemming darted from beneath the snow and she sprang . . .

The heavy-bodied jaeger flapped deliberately eastward. It had left the ice-clogged coast several miles behind and was headed across the narrow peninsula of extreme northern Alaska in search of prey. Keeping a watchful eye on the tundra below, it noticed a subtle shadow appear quickly on the surface of the snow near a small grassy clearing in the whiteness. Checking its flight, it hovered for a moment, then dropped as a lemming strayed dangerously into the open . . .

It is almost a cliché to say that the fabric of nature hangs in a delicate balance. It can be difficult to see how a change in one strand can affect the entire tapestry. However, nowhere is the importance of a single thread more obvious than on the coastal tundra of northern Alaska.

On the flat, pond-dotted coastal plain, the abundance and distribution of one small organism dictates the dynamics of the entire community. This singularly critical creature is the brown lemming. A small, grass-eating microtine, closely related to our local meadow voles, the lemming

is central to life on the northern tundra. Lemmings are notorious for wild fluctuations in density—in some years, they are virtually absent; in other years, they swarm over the stunted grasslands and marshes like herds of tiny ungulates on a Lilliputian Serengeti. The causes of these violent oscillations in population are obscure, but weather undoubtedly plays a crucial role.

Unlike many small rodents, lemmings do not hibernate. Instead, they are active throughout the eight-month arctic winter, feeding and raising young beneath the oppressive, but highly insulating, snow pack. As a result, snow conditions are critical to their survival. A heavy, dry pack is ideal—keeping out the sub-freezing ambient temperatures and allowing burrowing beneath the snow without risking a fatal collapse in the snow cover. Equally important to winter survival is the productivity of the previous summer. Warm, wet weather in July and August allows for more extensive plant growth, providing the reproductive lemmings with ample food supply. Under ideal conditions, winter reproduction and survival are high, setting the stage for the furious drama of the arctic summer.

As the mercury creeps above freezing in late May and early July, the snow starts melting away. Lemming runways collapse and are flooded, forcing the lemmings out into the open where they are vulnerable to a frightening host of predators. Owls, jaegers, foxes and weasels urgently await the arrival of the lemmings on the surface, for their survival and reproductive efforts hinge on the rodent densities. In years of low lemming numbers, Snowy Owls and Pomarine Jaegers do not breed at all and even during the seasons when they do breed, they may fail due to a midsummer crash in lemming numbers. Owl and jaeger populations show two different reproductive responses to lemming numbers. The Snowy Owls lay more eggs in good lemming years, whereas the Pomarine Jaeger maintains smaller territories and breeds in denser numbers. Short-eared Owls breed only during extreme lemming highs; similarly, weasels vanish from the tundra when the lemmings crash. Mysteriously, however, there are always enough to respond to the next lemming peak and restore the population.

The impact of lemmings on the tundra community extends far beyond the lemming predators themselves. At high densities, aggressive Pomarine Jaegers effectively exclude the smaller Parasitic Jaeger as a breeding species on the tundra. When lemming numbers are down and few Pomarine Jaegers set up territories, Parasitic Jaegers can establish residency. These smaller jaegers are primarily bird predators and

wreak havoc among the nesting birds when they are present. However, lemming explosions can also have adverse effects on the breeding avifauna. When lemmings are exceedingly dense, many shorebird nests are simply trampled by the hordes of rodents darting over the tundra. In addition, the lemmings can effectively mow the tundra grasses to ground level, eliminating vital cover for nesting birds. The impact of predation on other species during lemming highs is complicated. Predators are much denser and thus more likely to prey opportunistically upon a nest or nestlings. At the same time, the rodent numbers may be so high that sated lemming predators need not turn to alternative sources of food. The balancing effects of these interdependent phenomena have never been teased apart by arctic biologists.

Predation pressure and vegetative production determine how many lemmings survive the summer and remain on the tundra when the winter snows begin. The owls and jaegers have migrated south by late September and when the pack ice crushes the shoreline a month later, the foxes will abandon the tundra and follow the polar bear across the frozen ocean. A few weasels may remain active throughout the winter, but compared to the arctic summer, the lemmings are relatively secure in their snow-roofed winter homes. If temperatures don't plummet and if the food holds out, they are safe for the next eight months. In late May, however, the cycle begins again . . .

. . . The fox was nearly upon the lemming when a sudden rush of wings startled her. Whirling quickly, she saw the jaeger beating rapidly to avoid the collision. The bird lifted away, hovered briefly over the fox and continued eastward. The fox turned back to the lemming, but her prey had scampered to safety beneath the softening snow. Warm sunbeams sparkled on the glistening surface and more snow collapsed at the edge of the clearing. The lemmings would be safe beneath their blanket of snow for only a few more days.

—BRIAN J. McCAFFERY

Editor's note—This will be the last *Fabric of Nature* column for a while. Brian McCaffery will be doing ornithological research in Barrow, Alaska, this summer and then will travel to Australia to study bower birds. He hopes and I do, too, that he will be able to write further essays for *The Gull* when he returns to the Bay Area.

The Birds of Paradise and Bower Birds

The beautiful book described in the following review is a recent addition to the GGAS library. Because it is such a costly volume it may not be checked out of the office, but may be used there at any time during regular office hours.

The Birds of Paradise and Bower Birds, by William T. Cooper and Joseph M. Forshaw. William Collins Publishers Pt. Ltd., Sydney, Australia, 1977: 304 pp., 61 color plates, range maps, field sketches. \$150.

In 1973, Forshaw and Cooper published the magnificent *Parrots of the World*, in which every psittaciform species was illustrated and described. Since then, demand for the original edition has escalated, until today it commands up to eight times its original selling price of \$65. With the publication of their monograph, *The Birds of Paradise and Bower Birds*, the authors have surpassed even their previous collaboration. Quite simply, this book is the most beautiful ornithological work I have seen in the past few years.

To no small extent, my initial impression stems from the inherent beauty of the subject matter. The Birds of Paradise (Paradisaeidae) and to a lesser extent the Bower Birds (Ptilonorhynchidae) are considered by many to be the most striking of birds. Restricted to an arc of sub-tropical and montane rainforests extending through the center of New Guinea and down the eastern coast of Australia, the male Bird of Paradise combines a predominantly arboreal display with brilliant, ornamental plumage, while the somewhat duller Bower Birds build intricate terrestrial bowers during courtship. Long coveted for their magnificent skins and plumes (up to 30,000 exported per year at the turn of the century), they have recently become the subject of much scientific interest.

Cooper and Forshaw have attempted a comprehensive survey of these two families. As this work is intended to be a companion volume to E. Thomas Gillard's *Birds of Paradise and Bower Birds* (1969), only data published since 1965 is included. This data is supplemented by copious observations from Cooper's field notes together with unpublished information furnished by other field workers. Each species account, written by Forshaw, is accompanied by a detailed description of all sub-species and their distribution, plus a general section containing data on calls, displays, nesting, eggs, etc. The writing style is lucid, the data factual and concise.

The major contribution of this book, however, lies in the illustrations. Each color plate is 11 by 16 inches, depicting both the male and female of each species, in a natural setting. Cooper's style is remarkable: each bird is intricately detailed and very natural in posture. The background is ecologically accurate and equally detailed, yet unobtrusive. The colors are vibrant without being garish and the printing is of a quality rarely seen in books today. The purple sheen of the corvid-like Manucodes, for example, literally glistens on the page. The birds seem to be alive, ready to fly at any moment. Of course, even the best work is not perfect. The male King Bird of Paradise seems unfinished and unnatural — but this is only nitpicking.

Cooper has also included field sketches that are equally important to the finished work. These pen and ink drawings depicting courtship postures, bower construction techniques and the like, are rougher than the color plates. But combined with Cooper's field notations, they are a useful aid to understanding the vast diversity of species-specific behavior within these families.

—STEVE STRANN

Reprinted in part from the LAAS *Western Tanager*, September, 1978, Volume 45, Number 1.

Least Tern Study Update

Laura Collins, supervisor of the GGAS-sponsored Least Tern Study being conducted at the Alameda Naval Air Station, reported that as of June 5, 1980, there were 64 nests with eggs at the major colony, while two other nests were in an area just a bit to the north. Hatching should have occurred between June 10-15. A second nesting area has been reported and it was expected that additional nesting would occur there during a second wave of nesting activity which should have occurred when more terns arrived toward the middle of June.

Naval personnel have helped in the placement of cinder blocks and logs which gave shade and protection to the nests. The Navy has also taken responsibility for paying for the live trapping of feral cats that are suspected of having violated nests in the past. Other predators such as Western Gulls and jackrabbits are being watched closely in an effort to prevent harm to the young terns.

OFFICE CLOSED FIRST HALF OF JULY

Because Executive Director Jerry Emory will be attending the Audubon Ecology Camp in the West near Dubois, Wyoming, the GGAS will be closed during the first half of July.

The Status of Bell's Vireo

The U.S. Fish and Wildlife Service has accepted a petition to consider listing the California, Nevada, Utah, Arizona and northwestern Mexico populations of Bell's Vireo (races *V. b. arizonae* and *pusillus*) as endangered or threatened. Further data on the present status, possible critical habitat and impacts of such a designation are still required before the service can propose listing in accordance with Section 4 of the Endangered Species Act of 1973 as amended.

Information required includes complete distribution and numbers extant, specific habitats that may be proposed as critical, economic and other impacts of designating such areas as Critical Habitats and documented impacts of cowbird parasitism and habitat loss on the vireo.

Comments should be sent to the Director (OES), U.S. Fish and Wildlife Service, Washington, D.C. 20560 by October 3, 1980.

Flora and Fauna Art Exhibited

An exhibition of 85 works depicting California's native flora and fauna will be on view at the Oakland Museum until July 27. The works were selected from more than 250 entries submitted for jurying by a panel of three well-known scientific illustrators. Natural Sciences Curator Don Lindsdale says, "This is an opportunity for people to see outstanding examples of biological art and illustration, much of which appears only in specialized publications and rarely seen by the general public."

Pedro J. Gonzalez, a GGAS member and illustrator of our 1980 Birders' Calendar and Almanac, is represented by an oil painting and a drawing. Pedro is currently working on illustrations for the 1981 edition of the Birders' Calendar.

The museum is located at 1000 Oak St., near Lake Merritt, and is open every day but Monday.

Social Notes

On May 24, 1980, a baby girl, their first, was born to Martha Morrow of the Education Committee and her husband Bill. Marie Elizabeth weighed in at seven pounds, thirteen ounces.

GGAS president Bob Hirt was married to Deborah Thurman in Sausalito at noon on Saturday, June 7. The minister, speaking to them most sincerely, said that one way to insure their marital bliss was to "keep seeking birds." A Brown (?) Pelican formed from ice was the visual highlight of the banquet table.

Information Sought on Pileated Woodpeckers

As part of his master's thesis project, GGAS member Roger D. Harris is seeking information on the locations of Pileated Woodpecker nests or roosts that might have been observed in the past few years. If you have information to offer or wish to know more about the project, write to Roger D. Harris, Blodgett Forest Research Station, Star Route, Georgetown, CA 95634.

Interpretive Bird Signs at the Palace of Fine Arts

GGAS, in response to a request from the San Francisco Exploratorium, is helping to make an exciting bird interpretive sign project a reality through a grant to be matched by equal funds from member donations. The experience of visitors to the lagoon, a wintering place for many species of migratory birds, will be enhanced with information explained by the attractive project.

Feather structure, pigmentation and iridescence are just a few of the phenomena that GGAS members can help bring alive to the million visitors enjoying this site each year. This is an opportunity to turn a natural habitat often taken for granted into a daily learning experience for youngsters and adults alike.

The projected completion date for these signs is September, 1980. Tax-deductible contributions in support of this program can be made to the Audubon/Exploratorium Interpretive Signing Project and sent to the GGAS office, 2718 Telegraph Ave., #206, Berkeley, CA 94705.

GIFTS AND BEQUESTS

For GGAS

In memory of

Whitey (S. S. Whitehead)

Gift of

Louise and Marshall Pitney

Jane Dang

In honor of retirement of

Maggie Saulsberry

Ortheda Swahn

Virginia Madruga

Memorial and honorary gifts and bequests will be used as specified by the donors. Acknowledgment will be made in *The Gull* and personally by the Corresponding Secretary, Minnie Groshong. Please send check made out to the Golden Gate Audubon Society to: Corresponding Secretary, GGAS, 2718 Telegraph Avenue, Berkeley, California 94705. All gifts are tax deductible.



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THE GULL

July-August 1980

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Send address changes to office promptly; Post Office does not forward *THE GULL*. Monthly meetings: second Thursday, 7:30 p.m. Joint membership — local and national \$20 per year (individual); \$25 (family); includes *AUDUBON* Magazine and *THE GULL*; to join, make checks payable to National Audubon Society and send to GGAS office to avoid delay in receiving *THE GULL*. Membership renewals should be sent directly to the National Audubon office. Subscriptions to *THE GULL* separately \$5 per year; single issues 50¢. High school and college student membership \$13.50 per year. Senior citizen individual, \$13.50, senior citizen family, \$15.50.

The Golden Gate Audubon Society, Inc. was established January 25, 1917, and became a chapter of National Audubon in 1948.

***The Gull* deadline is the first of the month for the following month.**